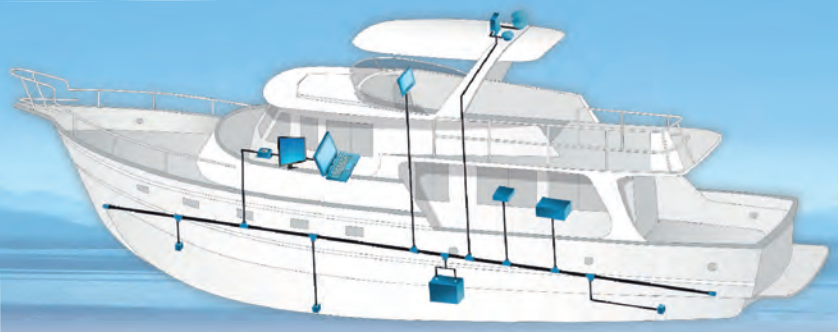
Maretron®

Vessel Monitoring & Control Systems

www.maretron.com



Maretron products plug and play over the open industry standard – NMEA 2000®

You decide what to monitor

- Anchor
- AC & DC Power
- Water Depth
- Water Temp
- Speed through Water
- Engine Parameters
- Local Weather
- Environment
- GPS
- Vessel Heading
- Indicators (various)
- Navigation Parameters
- Rudder Position
- Security
- Vessel Speed/Distance
- Tanks
- Time & Date
- Transmission Parameters
- Vessel Attitude
- Trim Tabs
- Wind Speed /Direction

You decide what to control

- Electrical Switching
- Bilge Pump
- Nav Lights
- Other electrical devices
- Water Maker
- AC
- Refrigeration

You decide how to view

Helm Monitor | Dedicated Displays | Phones | Tablets

DSM250 Multi-Function Colour Display

468-DSM250-01 - Black Enclosure
468-DSM250-02 - Grey Enclosure

A high-resolution sunlight viewable colour display that allows easy interpretation of NMEA 2000® instrument and navigation data using optional numeric, gauge, or graph formats in single or multiple displays, with cycling of favourite data.

- Directly connects with any NMEA 2000® network and display any or all information captured throughout the vessel.
- Various audio and visual alarms are programmable.
- Dimensions : H146 x W174.6 x D44.5 mm (incl. flanges for mounting)

DSM150 Multi-Function Colour Display

468-DSM150-02 - Grey Enclosure

A 3.5" high-resolution sunlight viewable colour display that interprets and displays NMEA 2000® instrument, navigation and vessel monitoring data. Users can choose numeric, gauge, bar or graph formats in single or multiple displays.

Dimensions : H95 x W95 x D51 mm

SMS100-01 Short Message Service (Text) Module

A mobile or cellular modem that automatically sends text message alerts from your vessel to your phone. The SMS100 works together with Maretron's dedicated displays (DSM150/DSM250) or N2KView® software to detect programmable alert conditions from sensors interconnected on a NMEA 2000® network. The displays or N2KView® software instruct the SMS100 to connect to the cellular network and transmit an alert message to selected telephone numbers.

- Programmable Alerts (alarms or warnings) from Maretron installed displays and sensors on the Vessel automatically triggers text message(s) to your phone
- User can text vessel for status (position, bilge status, battery and shore power voltage, wind speed, inside and outside temp) which also ensures alerts get through
- Six band GSM modem with easily interchangeable mini-sim card (sim card is user supplied)
- Dipole terminal antenna with hinged SMA connector with versatile mounting options
- Waterproof (IP65) enclosure

ALM100 Alarm Module

468-ALM100-01

Generates visual and audible alerts for any monitored condition. Completely waterproof, the Alarm Module can be triggered by alarms generated by Maretron's DSM250 Colour Graphics Display.

Dimensions : H114 x W70 x D51 mm (including wall plate - mounts in standard single gang electrical box)

IPG100 Internet Protocol Gateway

468-IPG100-1

The Internet Protocol Gateway (IPG100) lets you connect Maretron black boxes (MBB100), touchscreens (DSM800), PC's, Mac's, tablets, or smartphones to an NMEA 2000® network so you can monitor and control your vessel using Maretron's N2KView software.

With the IPG100, you can use any device running N2KView software to monitor and control your vessel from onboard or ashore.

USB100 NMEA 2000®

468-USB100-01

Bridges the gap between NMEA 2000® networks and PCs equipped with a USB port.

Dimensions : H88 x W79 x D35 mm
(including flanges for mounting)

Electronic Products		SSP Inc VAT
468-ALM100-01	Alarm Module	£383.01
468-DSM150-02	3.5" High Bright Colour Display (Gray Enclosure)	£483.23
468-DSM250-01	High Bright Colour Display (Black Enclosure)	£971.33
468-DSM250-02	High Bright Colour Display (Gray Enclosure)	£971.33
468-IPG100-01	Internet Protocol Gateway	£673.90
468-USB100-01	Gateway NMEA 2000®/USB	£286.04
468-SMS100-01	SMS (Text) Module	£673.90

All Prices are SSP Inc. VAT at 20%

N2KView Vessel Monitoring and Control Software

468-N2KVIEW

Monitor your vessel's systems while underway or remotely from your home or office, Maretron's N2KView software displays the information you need including engines, generators, tanks, rudders, navigation instruments, local weather, and much, much more.

- Comprehensive vessel monitoring and control software
- Gives you additional functionality including alerts, video, control, and fuel management.
- Completely user-configurable
- Create different screens for your exact needs, easily switching between them.
- Digital displays, analog gauges, graphic displays, warning lights, and bar graphs can be configured exactly how you want them to be.
- Even set the operating limits and colour bands for analog gauges so you know when things are within limits and when they are not.
- With alerts, you can relax knowing that the system is watching for smoke, CO, high bilge water, or anything else you deem important.
- Video capability allows you to add cameras as part of the monitoring system - for example a camera in the engine room or as part of the security system.
- Control functionality allows you to manage your electrical system; for example, turn lights or pumps on or off directly or even see whether they are working as they should be
- Fuel management function provides advanced information like distance and time to empty as well as fuel rate and fuel economy.
- Runs on your vessel's computer (requires USB100 or IPG100 to receive NMEA 2000® data) or on standalone products like the TSM800C and TSM1330C displays, or the MBB200C Black Box vessel monitoring system.

N2KView Mobile

Maretron's N2KView Mobile software allows you to monitor and control your vessel's systems from your smart phone or tablet device. This includes Android (2.2 and higher) smart phones and tablets as well as Apple iPod, iPhone, and iPad.

- Customize each display exactly the way you want it from the number of screens, each screen layout, and the size and type of each parameter to display using N2KView on a computer then download to your mobile device ready to use.
- Download N2KView Mobile free of charge from Google Play or iTunes store directly to your mobile device.
- Maretron Internet Protocol Gateway (IPG100) is required to get the sensor data onto the vessels WiFi for onboard viewing or onto the Internet for remote viewing.

N2KMeter-01 Network Diagnostic Tool

A diagnostic tool for NMEA 2000® networks that allows users to validate NMEA 2000® network compatibility and operations during installation of a device or complete system, and diagnose possible network flaws or failures that occur on an operational network.

- Cut troubleshooting time from hours to seconds, by effectively identifying and diagnosing network problems.
- Provides detailed technical information an NMEA 2000® troubleshooting expert needs, or a simplified summary for novices.
- Battery-powered operation allows readings to be saved to analyse later, off the boat.

NBE100-01 Network Bus Extender

Maretron's NBE100 allows you to go beyond the maximum NMEA 2000® network design rules and extend an NMEA 2000® network to two, three, four, and even five times larger than normal. The NBE100 also solves problems associated with network errors and other electrical issues caused by exceeding NMEA 2000® rules and it simplifies the design of large networks.

- Segments a single large NMEA 2000® network into smaller multiple electrical segments.
- Allows you to exceed the 50 product limitation, the 200 meter trunk length limitation and the 78 meter drop lengths limitation on NMEA 2000® networks.
- Allows all NMEA 2000® devices to operate as if they were still on a single NMEA 2000® network.
- Optically isolates network segments, increasing signal integrity and network reliability.

TSM800C/1330C Vessel Monitoring & Control

468-TSM800C-1 8" Touchscreen Display
468-TSM1330C-1 13.3" Touchscreen Display

These dedicated touchscreen displays include Maretron's N2KView vessel monitoring and control software which allows you to configure as many favourite screens as you want with exactly the information you want to see. And since the displays only dissipates 20 watts, there is no need for noisy internal cooling fans that wear out causing electronics to overheat and fail.

- Extremely simple touchscreen interface for monitoring and controlling critical systems from anywhere on the vessel
- Ruggedized for marine use and includes a solid state disk drive to withstand the pounding associated with waves.
- Can be mounted outside due to waterproof front
- Two USB ports for connecting keyboards, mice, or trackballs as an alternative to touchscreen control.
- Ethernet port for connecting Internet Protocol (IP) cameras for use with N2KView.
- Two completely isolated CAN bus connectors (M12) for easy connection to single or redundant NMEA 2000® networks.

MBB200C Vessel Monitoring and Control Black Box

468-MBB200C-01

A dedicated processing unit that includes Maretron's N2KView vessel monitoring and control software. Unlike a PC that allows any software to be loaded, the MBB200C runs only N2KView software making it extremely stable and dedicated to monitoring and controlling your vessel.

- Ruggedized for marine use and includes a solid state disk drive to withstand the pounding associated with waves.
- Dissipates less than 25W, reducing the need for noisy internal cooling fans prone to wear out causing electronics to overheat and fail.
- Connects to a monitor through a VGA connector and associated touchscreen through a USB or serial port connection.
- USB sockets for keyboards, mice, or track ball.
- 2 isolated CAN bus connectors (M12) for connection to NMEA 2000® networks
- Ethernet port for Internet Protocol (IP) cameras
- Same flexibility using N2KView software as on a PC, including configuring as many screens as you want with exactly the information you want to see.
- Software can be upgraded as improvements and new features are added.

E2500 Wireless-N Router for N2KView

468-E2500

A 2.4GHz / 5GHz Wireless-N router which comes pre-configured for use with Maretron's N2KView vessel monitoring and control system. Maretron's E2500 is the officially supported method for connecting Maretron client and server devices. Use the E2500 to connect PC's running Maretron's N2KView software with Maretron's IPG100 Internet Protocol Gateway.

- For Maretron's MBB200C, TSM800C and TSM1330C, use the E2500 to connect IP Cameras and Encoders.
- Use the E2500 to interconnect the components of your N2KView system for easy installation and reliable operation.

		SSP Inc VAT
Vessel Monitoring/Control Touchscreen Display		
468-TSM800C-01	8" Vessel Monitoring/Control Touchscreen (NMEA 2000® Direct Connection)	**£3,873.72**
468-TSM1330C-01	13.3" Vessel Monitoring/Control Touchscreen (NMEA 2000® Direct Connection)	**£4,843.37**
Black Box Unit		
468-MBB200C-01	Vessel Monitoring and Control Black Box (NMEA 2000® Direct Connection)	**£2,904.08**
N2KView Software		
468-N2KView	N2KView Vessel Monitoring and Control Software for Personal Computer	**£964.79**
468-N2KView-Alerts	Alerts Module	**£964.79**
468-N2KView-Video	Video Module	**£479.97**
468-N2KView-Control	Control Module	**£479.97**
468-N2KView-Fuel	Fuel Module	**£479.97**
468-NBE100-01	NMEA 2000® Network Bus Extender	**£576.94**
468-E2500	Linksys E2500 Wireless-N Router	**£179.38**

All Prices are SSP Inc. VAT at 20%

Vessel Monitoring

Image representative of ACM100, DCM100, DCR100, FFM100, FPM100, RIM100, SIM100, TMP100
Common Dimensions : H107 x W89 x D52 mm (including mounting flanges)

ACM100 Alternating Current Monitor

468-ACM100-01

Monitors AC power sources such as utilities and generators and transmitting:

- Voltage
- Current
- Frequency
- Real Power
- Reactive Power
- Apparent Power
- Power Factor
- Total Energy Imported
- Total Energy Exported

- **Supplied with 100A transducer c/w 1.5m cable (468-M000630)**

DCM100 Direct Current Monitor

468-DCM100-01

An advanced electronic monitoring device used to measure the voltage and current of any direct current (DC) power source or load. The DCM100 uses an included state-of-the-art Hall effect current sensor which simply slips over the wire – you don't have to break connections or install connectors as you do with inline shunts used by other solutions.

- Allows monitoring of : Battery Voltage/Current, State of Charge, Ripple Voltage, Time Remaining, Battery Case Temperature, Charge Efficiency Factor
- Supplied with 200A transducer c/w 1.5m cable (468-LEMHTA200-S)

DCR100 Direct Current Relay Module

468-DCR100-01

Contains 6 Direct Current (DC) relays, each capable of switching up to 10amps. The DCR100 connects directly to an NMEA 2000® network, so you can turn on and off the relays from any device onboard or remotely running Maretron's N2KView software.

SIM100 Switch Indicator Module

468-SIM100-01

Monitors switch closure devices and broadcasts the information over the NMEA 2000® network so the crew can be alerted to potential conditions or problems that warrant further investigation.

- Monitors and reports switch status
- Can detect and report problems like opens and shorts in switch circuits
- Compatible with Maretron detectors: Heat, Smoke, Carbon Monoxide, Bilge Water
- Also compatible with: Magnetic Switches, Glass Break, Door, Hatch, and Porthole Magnetic Switches
- Switch sensors - please call

FFM100 Fuel/Fluid Flow Monitor

468-FFM100-01

The FFM100 provides precision fuel flow information to help optimise fuel consumption, saving fuel operating cost. The FFM100 uses state-of-the-art, positive displacement metering benefiting with the elimination of flow conditioning components such as straighteners and pulsation dampers.

The FFM100 also uses true temperature compensation with embedded temperature sensors within the meters, and detects momentary reverse flow in the fuel lines due to fluctuating pressure. The FFM1000 can be used for fluid types other than fuel (e.g. water, oil etc) by ordering the appropriate flow sender.

FPM100 Fluid Pressure Monitor

468-FPM100-01

Adapts up to six pressure transducers (sold separately) to the NMEA 2000® network allowing you to observe fluid pressures and tank levels anywhere on the vessel where there are NMEA 2000® compatible displays.

The FPM100 also has a tank level mode to monitor fluid levels in a tank via a pressure transducer mounted at the bottom of the tank and transmitted over the NMEA 2000® network. This allows you to monitor the fluid levels in tanks that are extremely deep, have internal structures, or are otherwise not suited for other tank level sensing technologies.

TMP100 Temperature Module

468-TMP100-01

TMP100 measures the temperature for up to 6 temperature probes (up to 4 thermistor probes and 2 high temperature thermocouplers). Optional thermistor probes cover a wide range of applications including cabin and engine room air temperatures and under bolt temperature (inverters, chargers, pumps, motors, etc)

- Temperature sensors - please call

RIM100 Run Indicator Module

468-RIM100-01

Using 6 independent inputs, RIM100 monitors both AC and DC electrical circuits and reports, over an NMEA 2000® network, whether or not the electrical circuit is energized and running. (e.g. running lights, anchors lights, deck lights, bilge pumps and transfer pumps.

Engine Monitoring

J2K100 J1939 to NMEA 2000® Gateway

468-J2K100-01

Directly attaches into J1939 networks of compatible engines, transmissions, and gensets and converts the J1939 data to the NMEA 2000® interface. Critical engine, transmission, and genset data is then distributed throughout the vessel over a single cable where it can be monitored by any NMEA 2000® compatible display.

- Dimensions : H88 x W79 x D35 mm (incl. flanges for mounting)
- The J2K100 is compatible with any engine, transmission, or genset equipped with a J1939 interface, including products from the following manufacturers: Caterpillar, Cummins, Detroit Diesel, John Deere, Kohler, Northern Lights, Onan, Perkins, Steyr, Volvo Penta, Yanmar

EMS100 Analog Engine Monitoring System

468-EMS100-01

EMS100 plugs directly into engine wiring harnesses and converts analog signals such as water temperature and oil pressure to the new marine digital interface (NMEA 2000®).

- Compatible with following Yanmar engine series: GM, YM, JH, LH, LP, LY
- Requires Harness (468-EMSYMR01)

All Prices are SSP Inc. VAT at 20%

Sensors

GPS200 GPS Antenna/Receiver

468-GPS200-01

- Provides reliable position fixes 5 times per second, accurate boat speed four times per second, and precision time once per second.
- Plug-and-play device fully compliant and certified to the NMEA 2000® Standard.

WSO100 Ultrasonic Wind and Weather Station

468-WSO100-01

- Measures wind speed and direction, air temperature, barometric pressure, and relative humidity.
- Ultrasonic sensors are used for Wind measurements, which means no moving parts to wear out or to get caught in rigging.

SSC200 Solid State Compass

468-SSC200-01

- Solid state, rate gyro electronic compass that provides better than 1° heading accuracy through ±45° of roll and pitch angle, and better than 1° roll and pitch accuracy in static conditions.
- Can be automatically calibrated for deviation.
- Dynamic accuracy is improved with advanced digital filtering of the 3-axis magnetometer, 2-axis accelerometer and rate gyro.
- Dimensions : H82 x W113 x D54 mm (including mounting flanges)

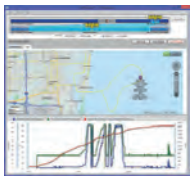
DST110-01 Smart Retractable D/S/T Transducer

- Delivers precise digital depth, accurate speed and exact water temperature even at speeds above 40 knots - no programming or calibration necessary.
- Patented Smart Sensor technology, retractable and removable sensor
- NMEA 2000® network connectivity
- Compact, waterproof plastic, bronze, or stainless steel housings compatible with any hull material.
- CE compliant (IEC 60945)

VDR100 Vessel Data Recorder

468-VDR100-01

Vessel Data Recorder (VDR100) is used to record messages transmitted from every product interconnected on the vessel's NMEA 2000® network. Recorded vessel data can be used in many ways including performance analysis, vessel tracking, preventative maintenance, network diagnostics, warranty incident, and accident investigation, stored using solid-state memory via a removable USB flash drive.



Analyzing or graphing recorded data is done using Maretron's free extraction software (N2KExtractor™).

USB Flash Drive Sizing Guidelines

Recording Period	Media Storage Capacity
1 secondw	7862 Bytes
1 minute	471,750 Bytes
1 hour	29 MBytes
1 day	680 MBytes
1 week	5 GBytes
1 month (30 days)	21 GBytes
1 year (365.25 days)	248 GBytes

Table figures are estimated assuming 25% loaded system (approximately 463 frames/sec) running continuously 24 hours/day, 7 days/week, 365 days/year.

TLMxxx Tank Level Monitors

468-TLM100-01 Up to 40" Depth (All fluids except petrol)
468-TLM150-01 Up to 24" Depth (petrol only)
468-TLM200-01 Up to 104" Depth (All fluids except petrol)

TLM units are used to sense fluid levels of tanks by using ultrasonic technology. Ultrasonic, or sound waves, are transmitted via the TLM mounted at the top of the tank and the flight times of the sound waves to and from the fluid are measured much like a depth sensor.

- **TLM100** suitable for diesel, fresh/waste/black water, and oil tanks; up to 1.02m in depth
- **TLM150** suitable for petrol tanks only; up to 24" (0.61m) in depth
- **TLM200** suitable for diesel, fresh/waste/water, and oil tanks; up to 2.64m in depth

RAA100/TLA100 Resistive Adapters

468-RAA100-01 Rudder Angle Adapter
468-TLA100-01 Tank Level Adapter

- Adapts American Standard (240-30 ohm) and European Standard (10-180 ohm) resistive senders to NMEA 2000® Network.
- Can be calibrated for any resistive sender ranging from 0-300 ohms or 300-0 ohms

Electronic Products		SSP Inc VAT
468-ACM100-01	Alternating Current (AC) Monitor	£479.97
468-DCM100-01	Direct Current (DC) Monitor	£479.97
468-DCR100-01	Direct Current Relay Module	£383.01
468-DST110-01	Depth/Speed/Temperature Triducer®	£338.41
468-EMS100-01	Analog Engine Monitoring System	£479.97
468-FFM100-01	Fuel Flow Monitor	£383.01
468-FPM100-01	Fluid Pressure Monitor	£383.01
468-GPS200-01	GPS/WAAS Antenna/Receiver	£286.04
468-J2K100-01	J1939 to NMEA 2000® Bridge	£383.01
468-N2KMeter-01	NMEA 2000® Diagnostic Tool	£867.83
468-RAA100-01	Rudder Angle Adapter	£286.04
468-RIM100-01	Run Indicator Module	£286.04
468-SIM100-01	Switch Indicator Module	£383.01
468-SSC200-01	Solid-State Rate/Gyro Compass	£673.90
468-TLA100-01	Tank Level Adapter	£286.04
468-TLM100-01	Tank Level Monitor (40" Depth Tanks)	£189.08
468-TLM150-01	Gasoline Tank Level Monitor (24" Depth Tanks)	£189.08
468-TLM200-01	Tank Level Monitor (104" Depth Tanks)	£770.87
468-TMP100-01	Temperature Module	£286.04
468-VDR100-01	Vessel Data Recorder	£770.87
468-WSO100-01	Ultrasonic Wind/Weather Station	£673.90

Accessories for Electronic Products		
468-M000612	400 amp Transducer c/w cable (ACM100)	£218.17
468-LEMHTA400-S	400 Amp Current Transducer with Cable (DCM100)	£145.45
468-LEMHTA600-S	600 Amp Current Transducer with Cable (DCM100)	£189.08

Accessories for Electronic Products (continued)		
468-EMSYRM01	Yanmar Harness (EMS100)	£242.41
468-M1ASP-2R-E8	Fuel Flow Sensor 20 to 200HP	£383.01
468-M2ASP-2R-E8	Fuel Flow Sensor 200 to 1000HP	£479.97
468-M4ARP-2R-E8	Fuel Flow Sensor 1000 to 3000HP	£673.90
468-PT-0-3PSI-01	Pressure Transducer 0 to 3 PSI (FPM100)	£144.48
468-PT-0-5PSI-01	Pressure Transducer 0 to 5 PSI (FPM100)	£144.48
468-PT-0-10PSI-01	Pressure Transducer 0 to 10 PSI (FPM100)	£144.48
468-PT-0-50PSI-01	Pressure Transducer 0 to 50 PSI (FPM100)	£144.48
468-PT-0-100PSI-01	Pressure Transducer 0 to 100 PSI (FPM100)	£144.48
More Pressure Transducers - available on request		
468-BHW100	Bilge High Water Detector (SIM100)	£53.33
468-CO-CO1224T	Carbon Monoxide (CO) Detector (SIM100)	£140.60
468-MS-1035	Magnetic Switch Rectangular (Indoor) (SIM100)	£6.30
468-SH-002	Smoke/Heat Detector	£111.51

NMEA 2000® Cable & Connectors (Micro Series)		
468-CM-CG1-CF-00.5	Micro Double-Ended Cordset - M to F - 0.5m (gray)	£24.24
468-CM-CG1-CF-01.0	Micro Double-Ended Cordset - M to F - 1m (gray)	£25.40
468-CM-CG1-CF-03.0	Micro Double-Ended Cordset - M to F - 3m (gray)	£29.77
468-CM-CG1-CF-05.0	Micro Double-Ended Cordset - M to F - 5m (gray)	£35.29
468-CM-CG1-CF-10.0	Micro Double-Ended Cordset - M to F - 10m (gray)	£46.25
468-CF-SPWR05-CF	Micro/Mid Powertap Tee	£45.19
468-CM-CF-4	Multiport Box	£86.98
468-CM-CF-CF	Micro Tee	£22.11
468-TR-CF	Micro Termination Resistor (Female)	£10.96
468-TR-CM	Micro Termination Resistor (Male)	£10.96

All Prices are SSP Inc. VAT at 20%